



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

Northwest Regional Office, 3190 - 160th Ave S.E. • Bellevue, Washington 98008-5452 • (206) 649-7000

April 20, 1995

Certified Mail  
Z 397 774 632

Mr. John S. Banchemo, Jr., President  
Northwest EnviroService, Inc.  
1700 Airport Way South  
Seattle, WA 98134

Dear Mr. Banchemo:

Re: NOTICE OF DEFICIENCY for Closure Plan  
Northwest EnviroService, Inc.  
EPA ID No.: WAD 05835 7152

The U.S. Environmental Protection Agency, Region 10, acting for the Washington State Department of Ecology, has completed a review of the Interim Status Closure Plan submitted on December 29, 1994 for closure of the Northwest EnviroService, Inc., (NWES) dangerous waste management facility. Pursuant to 40 CFR § 265.112(d)(4), incorporated by reference by WAC 173-303-400(3), the Closure Plan is hereby disapproved. A Notice of Deficiency (NOD) specifying the reasons for the disapproval is enclosed.

Substantial revisions are required prior to approval of this closure plan. As we have discussed, extensive soil sampling will be required in addition to the proposed concrete sampling for any units or portions of the facility which are to be "clean closed". Areas of the facility where contaminants will remain above MTCA Method B levels after closure activities are completed must be closed as a RCRA landfill; the closure plan must be revised to specify the criteria to be used in delineating units to be clean closed from those to be closed as a landfill. Engineering plans and specifications for an engineered cover for any landfill units must also be provided in the revised closure plan.

A revised closure plan addressing all comments must be submitted within sixty (60) days of your receipt of this letter. If you are unable to provide a revised closure plan by the deadline, request an extension within thirty (30) days of receiving this letter. Include a detailed schedule of activities, a proposed date by which the NOD responses will be submitted and a detailed justification. Ecology and EPA will evaluate the request and may then establish a revised submittal date.

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Please contact Sally Safioles of Ecology at 649-7026, or Christy Ahlstrom Brown of EPA at 553-8506, if you have questions regarding the enclosed NOD, or to schedule a meeting to discuss the closure requirements for this facility.

Sincerely,

*Sally Safioles*

Sally Safioles  
Hydrogeologist  
Hazardous Waste and Toxics Reduction Program

Enclosures

cc: C. Blumenfeld, Bogle & Gates  
C. Brown, EPA  
H. Fujita, Ecology-NWRO



NOTICE OF DEFICIENCY  
for  
Interim Status Closure Plan  
Northwest EnviroService, Inc.  
EPA ID No. WAD 05839 7152

1. Page 1, Section 1.1, "Introduction". The closure plan must be revised to include all areas of the facility where wastes have been managed, including all areas where wastes have been loaded/unloaded and transported. This section indicates that closure activities will be performed only for the regulated units designated on Figures 1-3 through 1-10. The aisleway which runs the length of the facility, where wastes are known to have been loaded, unloaded, staged, and transported, must also be addressed during closure activities.
2. Page 1, Section 1.1, "Introduction". The closure plan submitted to EPA in July, 1994, regarding the Freuhauf Pit, Large Pit, and Sumps No. 2 and 4, must be incorporated into the final facility interim status closure plan. The revised closure plan must address all comments provided by Ecology and EPA on November 29, 1994, regarding that plan. A copy of those comments are enclosed. Associated changes, such as the maximum waste inventory, must also be addressed in the revised closure plan.
3. Page 14, Section 1.4.2, "Specific Performance Standards". This section must be revised to clarify that the standards for determining whether clean closure has been achieved will be those specified by MTCA Method B.
4. Page 19, Section 1.5.1, "General Closure Activities-Sequence and Schedule". This section should be revised to specify that closure activities will commence upon approval by Ecology, rather than EPA.
5. Page 19, Section 1.5.1, "General Closure Activities-Sequence and Schedule". The sequence of closure activities must be expanded to include all steps to be taken if closure verification sampling fails to confirm that all constituents remaining in the soils and/or containment structures meet MTCA Method B standards. This sequence should describe the criteria to be used to determine what removal actions will be instituted, if any, or whether the unit(s) will close as a landfill.
6. Page 19, Section 1.5.1, "General Closure Activities-Sequence and Schedule". The sequence provided in this section describes closure activities for drums and small containers, bulk tanks, containment structures, and sumps. Revise this



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section to describe the closure activities to be performed for all units described in this closure plan (e.g., scrubber towers, carbon unit, shredder, drum crusher, etc.). Clarify whether the filter press and/or other treatment equipment will be utilized in addition to the Batch Wastewater Treatment Tanks in Area 5 for management of decontamination rinsate. Also describe how the rinsate generated during decontamination of the last units to be closed, the Waste Stabilization Tanks in Area 1, will be managed.

7. Page 21, Section 1.5.2, "Inventory Removal Procedures". Inspections of all regulated units should continue until certification of closure has been accepted by, rather than submitted to, Ecology.
8. Page 22, Section 1.5.3, "General Decontamination Procedures". Correct the reference to the tank decontamination procedures found in the last paragraph (Table 1-2 rather than 1-3).
9. Page 26, Section 1.6, "Performance Standard Verification", and Appendix 1A, "Field Sampling and Analysis Plan in Support of Closure". The closure plan proposes to utilize concrete chip samples taken from unit surfaces and containment sumps to verify that the clean closure performance standards have been met. The closure plan also indicates that soil sampling and groundwater investigations will be deferred to the corrective action process set up under the Consent Order under 3008(h) negotiated with EPA. The Consent Order was negotiated and issued under the assumption that the facility was seeking a permit to operate, and would continue managing RCRA wastes for some time to come. Now that NWES has chosen to close under interim status, "closure" becomes the primary regulatory mechanism under which releases from the facility must be addressed.

As we have discussed, the closure plan must be substantially revised to provide for sampling of soils beneath all concrete surfaces in order to verify that clean closure has been achieved. The sampling plan must include both random and biased samples; biased samples should be obtained beneath containment sumps and areas exhibiting cracks or stains. A grid for random sampling should then be developed such that the overall sampling strategy would result in a high probability that any release from the unit would be detected. This sampling must include entrances to the facility where wastes have been transported, such as the North Gate/Atlantic Street Right of Way. Given the suite of



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wastes which have been managed at the facility, samples must be analyzed for all 40 CFR Part 264 Appendix IX constituents in order to support a clean closure demonstration.

10. As we have also discussed, units and/or areas of the facility which cannot meet the performance standards for clean closure must close as a landfill. Soil sampling must also be performed for these units/areas prior to installation of a final cover. As the goal of this sampling is to ascertain the nature and magnitude of the "landfill" to be closed, rather than verify clean closure, a sampling plan significantly smaller in scope than that discussed above may be appropriate.
11. The closure plan must be revised to include engineered drawings and specifications for the final cover for those units/areas which you do not propose to clean close or which cannot clean close. As we have discussed, the final landfill cover must be designed in accordance with the requirements of WAC 173-303-665, and be constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients and the stress of planned daily operations. The revised closure plan must also include a Construction Quality Assurance plan, describing the methods to be used to ensure the integrity of the final cover during installation. A copy of "Technical Guidance Document: Final Covers on Hazardous Waste Landfills and Surface Impoundments", EPA/530-SW-89-047, July 1989, is enclosed.

Note that creation of a landfill at the facility will trigger additional regulatory requirements, including post-closure care of the unit and groundwater monitoring. These activities should not be included in the revised closure plan; the facility will be independently responsible for installation of an adequate groundwater monitoring system, submittal of a post-closure plan, and performance of post-closure care under interim status.

12. Page 31, Section 1.10, "Financial Requirements". The closure cost estimate and financial assurance mechanism must be updated to reflect all revisions to the closure plan.
13. Page A3-6, Section A3.5, "Field Quality Assurance/Quality Control (QA/QC) Samples". The QA/QC Plan must be revised to specify that field duplicate samples will be obtained at a minimum of 10 percent of sample locations for each analytical method, including at least one sample per method, rather than 10 percent "per batch".